PERMIT NO. MIG440000

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT

CONCENTRATED ANIMAL FEEDING OPERATIONS

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq; the "Federal Act"), Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"), Parts 31 and 41, and Michigan Executive Orders 1991-31, 1995-4 and 1995-18, concentrated animal feeding operations (CAFO) are authorized to operate facilities specified in individual "certificates of coverage" in accordance with the conditions set forth in this general permit (the "permit").

The applicability of this permit shall be limited to concentrated animal feeding operations as defined in this permit and to other animal feeding operations that request coverage under the permit for which the Michigan Department of Environmental Quality (the Department) determines that this permit is appropriate for the applicant's operation.

In order to constitute a valid authorization, this permit must be complemented by a certificate of coverage issued by the Department. The following will be identified in the certificate of coverage:

- The submittal date for the Executive Summary of the approved CNMP and copy of the signature page indicating the Certified CNMP Provider's approval,
- The magnitude of the 25-year 24-hour storm,
- The date by which the permittee shall have an operator certified by the Department.

All contact with the Department required by this permit shall be to the position indicated in the certificate of coverage, and all Department approvals specified in this permit shall be by the position indicated in the certificate of coverage, unless specified otherwise.

The terms and conditions of this general permit shall apply to an individual facility on the effective date of a certificate of coverage for the facility. The Department may grant a contested case hearing on this general permit in accordance with the Michigan Act. Any person to whom this permit is not acceptable may file a sworn petition with the Office of Administrative Hearings of the Michigan Department of Environmental Quality, setting forth the conditions of the permit which are being challenged and specifying the grounds for the challenge. The Department may reject any petition filed more than 60 days after issuance as untimely. The Department may grant a contested case hearing on the certificate of coverage issued to an individual facility under this general permit in accordance with Rule 2192(c) (Rule 323.2192 of the Michigan Administrative Code).

The provisions of this permit are severable. After notice and opportunity for a hearing, this permit may be modified, suspended or revoked in whole or in part during its term in accordance with applicable laws and rules. This general permit shall take effect January 1, 2003.

This general permit shall expire at midnight, December 31, 2007.

Issued December 13, 2002.

original signed
Richard A. Powers
Chief, Water Division

PART I

Section A. Water Pollution Control Requirements and Limitations

1. Authorized Discharges

During the period beginning on the effective date of a CAFO's certificate of coverage, and lasting until the expiration of this permit or termination of the certificate of coverage, the permittee is authorized to discharge the following, providing that the discharge does not cause or contribute to a violation of Michigan's Water Quality Standards:

a. Process wastewater and production area wastewater and/or manure in the overflow from the storage structures identified in Part I.A.3. below, when both of the following conditions are met:
   1) These structures are properly designed, constructed, operated and maintained, and
   2) Either chronic or catastrophic precipitation events cause an overflow of the storage structures to occur.

b. Silage leachate and runoff in the overflow from the facilities identified in Part I.A.4. below, when both of the following conditions are met:
   1) The facilities are properly designed, constructed, operated and maintained, and
   2) Either chronic or catastrophic precipitation events cause an overflow from the facilities

c. Runoff from precipitation events from land application areas of the CAFO where such land application areas are managed in accordance with the approved Comprehensive Nutrient Management Plan (CNMP)(see Part I.A.5. below).

2. Prohibited Discharges

During the period beginning on the effective date of a facility's certificate of coverage, and lasting until the expiration of this permit or termination of the certificate of coverage, the permittee is prohibited from having any dry weather discharge or discharging any process wastewater, production area wastewater, manure and/or silage leachate and/or runoff that doesn't meet the requirements of Part I.A.1. Discharges from land application activities that do not meet the requirements of Part I.A.1. are prohibited.

3. Manure and Wastewater Storage Structures

The permittee shall have manure and wastewater storage structures in place and operational that are designed, constructed, maintained and operated to contain all of the following:

a. All process wastewater, production area wastewater and manure resulting from the operation of the CAFO generated in a six-month time period or other time period as defined by United States Department of Agricultural Natural Resources Conservation Service (NRCS) standards (including normal precipitation and runoff in the production area during the same time period);

b. All production area wastewater from a 25-year 24-hour storm event. The magnitude of the 25-year 24-hour storm event will be specified in the certificate of coverage; and,

c. In addition to a. and b. above, manure and wastewater storage structures shall include additional design capacity equal to the freeboard requirements in NRCS Conservation Practice Standard No. 313, Waste Storage Facility.

The discharges in Part I.A.1.a. are not authorized unless the permittee is in full compliance with the requirements of this Part, Part I.A.3.

4. Silage Leachate and Runoff Control Facilities

The permittee shall have silage leachate and runoff control facilities in place and operational that are designed, constructed, maintained and operated to contain (i.e., prevent discharge to surface waters) all silage leachate and runoff from a 25-year 24-hour storm event. Silage leachate and/or runoff becomes regulated by this permit when they leaves the silage storage area.

a. All dry weather silage leachate and the first 0.5 inch of runoff from every precipitation event from the silage storage area shall be collected in wastewater storage facilities for proper utilization in accordance with the CNMP. Filter strips shall not be used to provide containment or treatment of this wastewater.

b. Silage storage area runoff in excess of 0.5 inch shall also be contained.

The discharges in Part I.A.1.b. are not authorized unless the permittee is in full compliance with the requirements of this Part, Part I.A.4. If the permittee routes silage leachate and/or runoff to the facilities identified in Part I.A.3, then the requirements of Part I.A.3. also apply to these wastewaters and to the associated areas which generate these wastewaters.

5. Comprehensive Nutrient Management Plan (CNMP) Development and Implementation

The permittee shall develop and implement a CNMP in accordance with the requirements of Part I.B.

PART I

Section A. Water Pollution Control Requirements and Limitations

6. Reporting of Discharges from Manure and Wastewater Storage Structures and Land Application

If, for any reason, there is a discharge of pollutants to a surface water of the State from manure and wastewater storage structures, production areas, silage facilities, or land application areas, the permittee shall report the discharge to the Department, the Clerk of the local unit of government, and the county health department in accordance with the reporting procedures contained in Part II.B.2. In addition, the permittee shall keep a copy of the report together with the approved CNMP. The discharge report shall include the following information:

a. A description of the discharge and its cause, including a description of the flow path to the surface water of the State.
b. The period of discharge, including exact dates and times, the anticipated time it is expected to continue, and steps taken or planned to reduce, eliminate and prevent recurrence of the discharge.
c. An estimate of the volume of the release.
d. If the permittee believes that the discharge is an authorized discharge, then the permittee shall include a demonstration that the discharge meets the requirements of Part I.A.1.a., Part I.A.1.b., and/or Part I.A.1.c., as appropriate.

7. Closure of Structures and Facilities

The following conditions shall apply to the closure of lagoons, manure and wastewater storage structures, earthen or synthetic lined basins and other manure and wastewater facilities and silage wastewater storage facilities (collectively referred to as "structure(s)" for the remainder of this Part):

No structure shall be permanently abandoned. Structures shall be maintained at all times until closed in compliance with this section. All structures must be properly closed if the permittee ceases operation. In addition, any structure that is not in use for a period of twelve consecutive months must be properly closed unless the permittee intends to resume use of the structure at a later date, and either: (a) maintains the structure as though it were actively in use, to prevent compromise of structural integrity and assure compliance with final effluent limitations, or (b) removes manure and wastewater to a depth of one foot or less and refills the structure with clean water to preserve the integrity of the synthetic or earthen liner. In either case, the permittee shall conduct routine inspections, maintenance, and record-keeping as though the structure were in use. The permittee shall notify the Department in writing prior to closing structures, or upon making a determination that the structures will be maintained as specified in (a) or (b) above. Prior to restoration of use of the structure, the permittee shall notify the Department in writing and provide the opportunity for inspection.

All closure of structures shall be consistent with NRCS Conservation Practice Standard No. 360, Closure of Waste Impoundments. Consistent with NRCS standards, the permittee shall remove all waste materials to the maximum extent practicable and utilize them in accordance with the permittee's approved CNMP, unless otherwise authorized by the Department.

Unless otherwise authorized by the Department, completion of closure for structures shall occur as promptly as practicable after the permittee ceases to operate or, if the permittee has not ceased operations, 12 months from the date on which the use of the structure ceased, unless the structure is being maintained for possible future use in accordance with the requirements above.

8. Standards, Specifications and Practices

The permittee shall use the published standards, specifications and practices, as referenced in this permit, which are in effect at the time of permit issuance, unless otherwise provided by law. NRCS Conservation Practice Standards referred to in this permit are currently contained in Section IV, Practice Standards and Specifications, of the Michigan NRCS Field Office Technical Guide.

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Section A. Water Pollution Control Requirements and Limitations

9. Expiration and Reissuance

To continue authorization under this permit beyond the permit's expiration date, the permittee shall submit a written request to the Department on or before July 1, 2007. The request shall include a copy of the signature page indicating the Certified CNMP Provider's re-approval of the permittee's CNMP. A person holding a valid certificate of coverage under an expired general permit shall continue to be subject to the terms and conditions of the expired permit until the permit is terminated, revoked, or reissued.

If this permit is modified or reissued, the permittee shall: a) request coverage under the modified or reissued permit, b) apply for an individual NPDES permit, or c) request termination of authorization. Lacking an adequate response, the permittee's authorization shall expire on the effective date of the reissued or modified permit.

If this permit is terminated or revoked, all authorizations under the permit shall expire on the date of termination or revocation.

PART I

Section B. Comprehensive Nutrient Management Plan

1. Michigan's Comprehensive Nutrient Management Plan

A Michigan Comprehensive Nutrient Management Plan (CNMP) describes the production practices, equipment, and structure(s) that the owner/operator of an agricultural operation now uses and/or will implement to sustain livestock and/or crop production in a manner that is both environmentally and economically sound. It combines conservation practices and management activities into a system that addresses animal production operations from feed inputs through use of animal manure and other organic by-products. The CNMP is a planning tool as well as a record of decisions in that it details the activities that the landowner/operator implements. It also documents all the land (cropland, facilities, etc.) which the landowner/operator owns or has decision-making authority over, on which manure or organic by-products will be generated, handled, or applied.

The objectives of the CNMP include: protecting water quality, obtaining beneficial use from animal manure and organic by-products of the operation, and minimizing impacts to the environment and public health from animal feeding operations. The CNMP shall apply to both production areas and land application areas. Each of the components listed in Part I.B.4., below, shall be addressed when developing the CNMP. Specific practices used to implement each component may vary to reflect site-specific conditions. All applicable practices may not be included on this list. Site-specific structural, conservation, or managerial practices shall be designed, installed, and maintained equivalent to standards and specifications from the NRCS. The permittee shall comply with NRCS Conservation Practice Standard No. 590, Nutrient Management, and Conservation Practice Standard No. 633, Waste Utilization. If standards and specifications different from NRCS are used for practices not covered by Conservation Practice Standard No's. 590 and 633, the permittee shall demonstrate, to the satisfaction of the department, equivalency to NRCS standards and specifications. The demonstration shall be retained on file by the permittee and the demonstration shall be provided to the Department upon request.

Additionally, the CNMP shall be designed and implemented to assure compliance with the Water Pollution Control Requirements and Limitations in Part I.A.1 through Part I.A.4. and to meet the Minimum Standards in Part I.B.3., below.

2. CNMP Development, Approval, Implementation and Review/Update

a. Approval

The CNMP shall be approved by a Certified CNMP Provider. An Executive Summary of the approved CNMP and a copy of the signature page indicating the Certified CNMP Provider's approval shall be submitted to the Department by the date specified in the issued certificate of coverage, but no later than one (1) year after issuance of the certificate of coverage. An extra copy of the entire CNMP shall be available at the CAFO for review by the Department.

Essential elements of the Executive Summary are:

1) The livestock type(s), herd/flock size, and type of livestock operation;
2) Whether it is a new, existing or expanding production facility;
3) The type, size, and general construction of the facility,
4) The type, size, design basis (size and structure), storage time capacity and general construction of manure and wastewater storage system(s) and of silage leachate and runoff containment facilities.
5) The approved design and/or certification(s), as specified in Part I.B.3.j., for the construction of Manure and Wastewater Storage Structures.
6) A list of environmental concerns, i.e. runoff into surface waters, odors, groundwater risks and how these concerns are addressed;
7) Future goals and long term plan such as expansion or significant changes that impact nutrient use on the farm;
8) Number of acres available for land application,
9) A map showing the location of the farm production area with all nearby surface waters identified, and;
10) The implementation schedule for the CNMP, including any necessary upgrades to meet the requirements of Part I.A.3., Part I.A.4., and Part I.B.3.j(2).

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Section B. Comprehensive Nutrient Management Plan

b. Implementation
The approved CNMP shall be implemented upon approval in accordance with the CNMP schedule of implementation.

c. Annual Review and Plan Revisions
The permittee shall annually review the approved CNMP and update the CNMP as necessary. Additionally, the permittee shall review all facilities and land application practices and areas addressed in the permittee's approved CNMP to evaluate whether practices identified in the approved CNMP are adequately and properly implemented in accordance with the terms of this permit or whether additional control measures are needed. The annual review and update shall include an updated field specific spreading plan which identifies when, where and how much manure and/or wastewater will be applied to each field. The permittee shall notify the Department in writing by April 1, of each year, that the annual review has been completed. If the Department determines that the CNMP is inadequate in preventing pollution, the Department may require revisions of the CNMP.

Prior to a significant change in the operation of the CAFO or whenever there is an unauthorized discharge (see Parts I.A.1 and I.A.2.), the approved CNMP shall be revised and the revisions approved by a Certified CNMP Provider. A revised CNMP Executive Summary shall be submitted to the Department within ninety (90) days of a significant change or an unauthorized discharge with a copy of the Certified CNMP Provider certification that the revised CNMP has been approved. Significant change includes, but is not limited to:
1) An increase in the number of animal units that is greater than or equal to 10% of the number identified in the CNMP;
2) An increase in the number of animal units that results in a decrease in the waste storage capacity time, as identified in the CNMP, by one month or greater;
3) An increase in the number of animal units where the manure generated by the livestock requires more land for its application than is available at the time of the increase.
4) A decrease in the number of acres available for land application, where the manure/waste generated requires more land for it's application than will be available after the decrease.

Nothing in this part shall relieve the permittee of compliance with Parts I.A.1. through I.A.4.

3. Minimum Standards

The following Minimum Standards are designed to achieve the objectives of preventing discharges of pollutants to waters of the State from production areas and from land application activities.

a. Buffers and Equivalent Practices
Provide and maintain buffer strips or other equivalent practices near feedlots, manure storage areas, and land application areas that are sufficient to prevent the discharge of pollutants (e.g., soil erosion, manure and wastewater) to waters of the State in quantities that may cause or contribute to a violation of water quality standards. These practices may include but are not limited to residue management, conservation crop rotation, grassed waterways, strip cropping, vegetative buffers, forested riparian buffers, terracing, and diversion.

b. Divert Clean Water
Design and implement management practices to divert clean water, where practical, and floodwaters from contact with feedlots and holding pens, animal manure, or manure and/or process wastewater storage systems. Clean water may include roof runoff, runoff from adjacent land, or other sources.

c. Prevent Uncontrolled Direct Contact of Animals with Waters of the State
Develop and implement appropriate controls, in accordance with NRCS Standards, to protect water quality by preventing uncontrolled access of animals to waters of the State. There shall be no access of animals to waters of the State at the production area of the CAFO.

d. Animal Mortality
Handle and dispose of dead animals in a manner that prevents contamination of waters of the State and in accordance with PA 239 of 1982, as amended, Bodies of Dead Animals Act..

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e. Chemical Disposal
Prevent introduction of hazardous or toxic chemicals (for purposes of disposal) into manure and wastewater storage structures. Examples of hazardous and toxic chemicals are pesticides and petroleum products/by-products.

f. Proper Operation and Maintenance
Implement an operation and maintenance program that includes periodic visual inspection, proper operation, and maintenance of all manure and wastewater storage structures, manure and wastewater handling equipment and all runoff management devices (e.g., cleaning separators, barnyards, catch basins, screens, annual calibration of land application equipment, maintenance of filter strips) and to prevent the discharge of pollutants to surface water and to groundwater. All manure application equipment shall be maintained and calibrated annually to ensure proper application rates.

g. Maintain Proper Storage Capacity
Maintain sufficient operational freeboard in liquid manure and wastewater storage structures to meet NRCS standards and to ensure compliance with the permit conditions. Store dry manure in production buildings or in storage facilities or otherwise store in such a way as to prevent polluted runoff. Provide adequate storage capacity so that land application occurs only during periods when land or weather conditions are suitable for manure and wastewater application.

h. Maintain Tile System Integrity
Maintain tile system integrity to prevent the discharge of process wastewater, production area wastewater, manure, silage leachate and runoff, and other polluting material which is land applied. The permittee shall take site-specific actions, which include but are not limited to, determining appropriate application location, time, method and rate to prevent the discharge of this material. The permittee shall identify and document, on a field by field basis, tile outlets and tile risers. Prior to land application, the permittee shall inspect the land application area to determine the suitability of the site for land application (considerations may include tile location and depth, soil type, evidence of soil cracking, moisture holding capacity of the soil profile, crop maturity, prior precipitation, forecasted precipitation, etc.). Any discharge of process wastewater, production area wastewater, manure, or silage leachate and runoff through a tiled system is prohibited, unless such discharge is the result of a precipitation event and the runoff meets the requirements of Part I.A.1. In the event of a discharge through tile lines, the permittee shall identify and document, for field(s) from which the discharge occurred, the location of tile and depth of tile. The permittee shall also document field conditions at the time of the discharge, determine why the discharge occurred and how to prevent future discharges.

i. Rates and Timing of Land Application of Manure and Wastewater
Land apply manure and/or wastewater in accordance with land application rates developed on a site-specific basis as needed to protect water quality. The permittee shall land apply at rates that (1) do not exceed the capacity of the soil and the planned crops to assimilate nutrients; and (2) are quantified and based on the most limiting nutrient in the soil (e.g., phosphorus or nitrogen), type of crop, realistic crop yields, soil type, and all nutrient inputs in addition to those from manure and wastewater. The basis for the most limiting nutrient in the soil shall be as described in NRCS Standards, currently set forth in Conservation Practice Standard No. 590, Nutrient Management. Manure and/or wastewater shall not be applied on land that is flooded, saturated with water, frozen or snow covered at the time of land application where the manure and wastewater is likely to enter waters of the State. Manure and/or wastewater shall not be applied during rainfall events. Field application shall be delayed if precipitation capable of producing runoff or erosion is forecasted within 24 hours of the time of the planned application. There shall be no discharge of manure and/or production area wastewater except in accordance with Part I.A.1. If manure and/or wastewater are land applied during the winter months, the NRCS Manure Application Risk Index (MARI) shall be used to establish which fields are appropriate for winter spreading and which fields shall be avoided. The MARI shall be used to assess the risk of manure and/or wastewater movement from frozen and/or snow-covered fields and to assist in the identification of practices that prevent the discharge of manure and/or wastewater to waters of the State in quantities that may cause or contribute to a violation of water quality standards. Only fields, or portions of fields, that rated low or very low by the MARI shall be used for winter application.

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j. Construction of Manure and Wastewater Storage Structures (Storage Structures)

1) New Storage Structures (constructed after the effective date of the COC)
Storage structures shall be constructed in accordance with NRCS standards, currently set forth in Conservation Practice Standard No. 313, Waste Storage Facility, in order to assure protection of groundwater quality. The design of storage structures shall be approved by an individual qualified to review the component. The storage structures shall be constructed in accordance with the approved design. An individual qualified to review the component shall certify that the storage structure was constructed in accordance with the approved design.

2) Existing Storage Structures
Existing storage structures shall be inspected by an individual qualified to review the component that the storage structures are constructed in accordance with NRCS standards to assure protection of groundwater quality.

4. Outline of CNMP

a. Overview
A brief statement describing the farm operation including enterprises, goals, and long-term plans for resource management.

b. Farm Headquarters Map
A site map showing locations of farm buildings, animal housing, manure storage structures, other sources of manure and wastewater, feed storage, farm house(s) and any other relevant physical features.

c. Animal Outputs
1) Production of Outputs
   a) Identify number of animals, species, weight, production level, etc. of livestock (herd/flock inventory).
   b) Identify the total amount, location and characteristics of manure, wastewater and other organic by-products generated, including method(s) of calculation. This includes but is not limited to:
      (1) Manure and wastewater nutrient content and volume.
      (2) Milkhouse and parlor wastewater.
      (3) Water from plate coolers/supplemental cooling.
      (4) Runoff from feedlot/barnyard, stored manure, or other stored livestock feed.
      (5) Silage leachate.
      (6) Spoiled feed.
   c) Identify water control devices (diversions, roof gutters, etc.) used to reduce amount of polluted water.
   d) Animal mortalities management- i.e. compost, render, burial, etc.
   e) Animal veterinary wastes management.
2) Collection of Outputs
   a) Manure and wastewater collection method(s).
   b) Location of collection points at facility.
   c) Schedule of collection.
   d) Equipment and/or structural facilities used for collection.
3) Storage of Outputs
4) Type, location and size (dimensions) of manure and wastewater storage structures
   a) Storage capacity: Volume and Duration of storage time based on waste production.
   b) Assess volume and site suitability for storage (existing and planned).
   c) Means to measure freeboard, where applicable, and fill rate.
5) Type, function, capacity and location of any treatment facility or equipment (where applicable).
6) Methods, frequency (or schedule) and structures or equipment used for the movement of manure and wastewater between collection, storage, treatment and utilization locations.

d. Conservation Practices on Fields Used for Manure Application
1) Evaluation of potential for nitrogen or phosphorus transport off-site (i.e. to surface and/or ground water). Include such factors as:
   a) Soil
      (1) Soil Hydrologic Group.
      (2) Soil Management Group.
      (3) Percent Slope.

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(4) Topography.
(5) Soil Test P. Value (Bray P 1 in lbs/ac).
(6) Nitrogen Leaching Index for Soil Hydrologic Group.

b) Water Quality
(1) Concentrated Water Flow or Surface Inlet.
(2) Tile drainage system.
(3) Setbacks from Surface Water.

c) Surface Cover
(1) Residue Cover/Cover Crops.
(2) Vegetative Buffer Width.

d) Manure
(1) Manure phosphorus application.
(2) Manure nitrogen application.
(3) Manure application method(s).

2) Identification of sensitive areas such as sinkholes, streams, water-bodies, wells, gullies/swales, surface inlets, drinking water sources and property boundaries.
3) Identification of conservation and management practices used for erosion control and water management in order to control offsite transport of nitrogen and phosphorus.
4) Identification, by field, whether winter application of manure is acceptable.
5) Develop maps showing sensitive areas, setbacks and locations of practices/activities.

e. Land Application Management
1) Nutrient budget for nitrogen, phosphorus, and potassium from all sources (include form, source, amount, timing and method of application).
2) Calibration of application equipment.
3) Application schedule (planned dates of application – i.e., month).
4) Determine application rates (see Part I.B.3.i.), by fields, based on:
a) Crops to be grown.
b) Realistic crop yield goals.
c) Crop nutrient needs.
d) Soil fertility test results (within last three years).
e) Previous crops grown, including residual nutrient credits.
f) Manure and wastewater nutrient content.
g) Nitrogen or phosphorus limiting nutrient.
h) Winter spreading requires special provisions to control runoff and erosion.
i) At time of application, consider field specific conditions (wet, dry, frozen, etc.) and adjust application rates accordingly.

f. Record of CNMP Implementation
1) Records to be kept by field:
a) Soil test reports.
b) Date(s) of manure/wastewater applications(s).
c) Source and rate of manure/wastewater applied.
d) Date(s) and rate(s) of other nutrients applied.
e) Date(s) of incorporation (where applicable).
f) Method of application (e.g., surface applied, injected, irrigated).
g) Acres and area of field applied.
h) Weather conditions during, and for 24 hours after, application of manure.
i) Field conditions during application of manure (wet, dry, frozen, etc.).
j) Recommended nutrient application rates.
k) Previous crops grown and yields.
l) Plant tissue sampling and testing reports (where applicable).
m) Pre-Sidedress Nitrate Test (PSNT) reports (where applicable).

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2) Other records:
   a) Manure/wastewater quantities produced and nutrient analysis results.
   b) Inspection and maintenance records.
   c) Records of rental agreements or other agreements for application of manure/wastewater on land not owned by the producer.
   d) Record of manure/wastewater sold or given away to other landowners (where applicable).

g. Inputs to Animals – Feed Management (when used as a management technique to lower the nutrient content in manure)
The management of animal inputs that results in:
1) Optimum production of farm products and/or animal body maintenance.
2) Best economical use of feed materials.
3) Minimization of the amount of available nutrients contained in manure.

h. Alternative Utilization Activities (if used)
1) Transport and environmentally sound off-site utilization.
2) Power generation (e.g. methane production, combustion for energy).
3) Conversion to value-added products (e.g. compost).

i. Inspections, Operation & Maintenance and Training
1) Schedule for inspection of structural and vegetative practices and equipment.
2) Operation and maintenance practices/activities.
3) Schedule for review of management practices/activities to ensure implementation of plan.
4) Plan for training employees how to follow the approved CNMP, including a schedule for when training will be provided, such as:
   a) New employees hired.
   b) New processes, procedures or equipment.
   c) Employee responsibilities.

j. Schedule of Implementation
New components that are planned and the implementation schedule for each new component.

k. Emergency Action Plan
A plan shall be developed that specifies the actions necessary in the event of a discharge, spill or other environmental emergency. The plan, at a minimum, shall specify:
1) Actions to take in the event of a spill, discharge, or failure of a collection, storage, treatment of transfer component. These actions shall be designed to stop a discharge from occurring, or if a discharge is occurring, then the actions shall be designed to stop the discharge, whenever possible, or minimize the discharge.
2) Telephone numbers to report and seek assistance in the event of an emergency and to notify the Department.
3) Anticipated flow paths in the event of a spill, discharge, or failure. Show paths on a site map.

l. References
1) List sources of information cited/used in development of the plan.

m. Appendices
1) Copies of pertinent references cited in the plan.
2) Environmental documentation, as appropriate.
3) Appropriate supporting documents not included in other parts of the plan (i.e., worksheets, forms, etc.).

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Section B. Comprehensive Nutrient Management Plan

5. General Inspection, Monitoring, and Record Keeping Requirements

The permittee shall inspect, monitor, and record the results of such inspection and monitoring in accordance with the following:

PARAMETER	UNITS	FREQUENCY
a. Manure, wastewater, silage and silage leachate/runoff storage structures monitoring and inspection (results of this monitoring and inspection (Part I.B.5.a.) shall be compiled into an annual report and submitted to the Department by April 1 of each year)		
Freeboard: For liquid storage basins, report the water level in feet below the emergency overflow level. For solid manure storage structures, report the percentage of remaining storage capacity.	Feet or Percent	Daily during precipitation events, otherwise, Weekly
Structural integrity (i.e., integrity of berms, cracking, erosion, evidence of overflow). Documentation of compliance with this requirement must be compiled in an inspection report to be kept at the facility.	NA	Monthly
Silage leachate and/or runoff facilities. Inspect to ensure proper functionality of facilities and to assure compliance with Parts I.A.2. and I.A.4.	NA	Daily during precipitation events, otherwise, Weekly
b. Sampling of waste/wastewater and soils at land application sites (Sampling and practices for land application must be conducted in accordance with the permittee's approved CNMP.)		
Sample manure, waste and/or wastewater to determine available nutrient content (nitrogen and phosphorus)	lbs/gal. (liquids) lbs/ton (solids)	Frequencies shall be based on the permittee's approved CNMP
Sample soils at land application sites to determine soil fertility	Pounds per acre	At least every three years
c. Land application activities (Monitor during periods of land application only. Sampling and practices for land application must be conducted in accordance with the permittee's approved CNMP.)		
Quantity and rate of waste/wastewater applied to fields used for land application	Gallons/acre or tons/acre	Monitor each field at time of land application
Inspect drainage tile discharge points from land application fields for the discharge of manure (observe and compare color and odor before and after land application)	Visual	
Inspect equipment used for land application for structural integrity and proper operation	Visual	Frequencies shall be based on the permittee's approved CNMP
Condition of designated conservation practices (i.e., grassed waterways, buffers, diversions)	Visual	

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6. Requirements for Land Application Activities Not Under the Control of the CAFO Permittee

In cases where manure and/or wastewater is sold or given away and the land application of that manure and/or wastewater is not under the operational control of the permittee, such land application does not need to be addressed in the permittee's approved CNMP. However, the permittee shall ensure the environmentally acceptable use of the manure and/or wastewater by complying with the following conditions:

a. Maintain records showing the date and amount of manure and/or wastewater that leaves the permitted operation;

b. For quantities of greater than one pick-up truck load (approximately one cubic yard or one ton) per recipient per day:

1) Record the name and address of the recipient;

2) Provide the recipient(s) with representative information on the nutrient content of the manure and/or wastewater to be used in determining the appropriate land application rates; and,

3) Inform the recipient of his/her responsibility to properly manage the land application of the manure and/or wastewater to minimize the discharge of pollutants to waters of the State.

These records should be retained on-site, made available upon request of the Department during on-site inspections, and shall be submitted to the Department upon request.

PART II

Section A. Definitions

Animal feeding operation means a lot or facility, or series of lots or facilities (1) that are under common ownership and are adjacent to one another or (2) which use a common area or system for the disposal of wastes, that meets both of the following conditions: (i) Animals, other than aquatic animals, have been, are, or will be stabled or confined and fed or maintained for a total of 45 calendar days or more in any 12-month period, and (ii) Crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over the portion of the lot or facility where animals are confined.

Animal unit means a unit of measurement for any animal feeding operation calculated by adding the following numbers: the number of slaughter and feeder cattle multiplied by 1.0, plus the number of mature dairy cattle multiplied by 1.4, plus the number of swine weighing over 25 kilograms (approximately 55 pounds) multiplied by 0.4, plus the number of sheep multiplied by 0.1, plus the number of horses multiplied by 2.0. All other animal classes or types not listed in the table below under the definition of CAFO, but which are defined in the Michigan Right to Farm Act or described in Michigan Commission of Agriculture Policy, are to be calculated such that one thousand pounds live weight equals one animal unit.

CAFO or concentrated animal feeding operation means an animal feeding operation which stables or confines and feeds or maintains for a total of 45 days or more in any 12-month period more than the numbers of animals specified in any of the following categories:

1. 1,000 slaughter or feeder cattle,.
2. 700 mature dairy cattle (whether milked or dry cows),
3. 2,500 swine each weighing over 25 kilograms (approximately 55 pounds),
4. 500 horses,
5. 10,000 sheep or lambs,
6. 55,000 turkeys,
7. 100,000 laying hens or broilers (if the facility has continuous overflow watering),
8. 30,000 laying hens or broilers (if the facility has a liquid manure handling system),
9. 5,000 ducks, or
10. 1,000 animal units (see definition of Animal Unit above);

A CAFO includes both production areas and land application areas.

Catastrophic precipitation event is equal or greater than in size to a 25-year, 24-hour storm event. Catastrophic events include tornadoes, hurricanes, or other catastrophic conditions that would cause an overflow from the waste retention structure that is designed, constructed, operated, and maintained to meet all the requirements of this permit.

Certified CNMP Provider is a person that attains and maintains educational and technical certification requirements as agreed to by a certifying organization that has signed a Memorandum of Understanding with the United States Department of Agriculture Natural Resources Conservation Service (NRCS).

Chronic precipitation event is a series of wet weather conditions that precludes reducing the volume of properly maintained waste retention structures.

CNMP means Comprehensive Nutrient Management Plan.

Department means the Michigan Department of Environmental Quality**.**

Discharge as used in this permit means the addition of any waste, waste effluent, wastewater, pollutant, or any combination thereof to any of the surface waters of the state.

Land Application means spraying or spreading of biosolids, manure, wastewater and/or derivatives onto the land surface, injecting below the land surface, or incorporating into the soil so that the biosolids, manure, wastewater and/or derivatives can either condition the soil or fertilize crops or vegetation grown in the soil.

Manure means animal waste.

NRCS means the Natural Resources Conservation Service of the Untied States Department of Agriculture.

Process wastewater means any water directly or indirectly used in the operation of a CAFO for any of the following: spillage or overflow from animal or poultry watering systems; washing, cleaning or flushing pens, barns, manure pits, or other CAFO facilities; direct contact swimming, washing or spray cooling of animals; and dust control.

PART II

Section A. Definitions

Production Area is the portion of the CAFO that is not used for land application and includes all areas used for animal product production activities. This includes, but is not limited to: areas used for animal raising, maintenance and feeding; areas used for feed, manure, waste and/or wastewater storage; areas used for storage, use and/or maintenance of machinery, equipment or chemicals; and, areas used for processing (at the location of the CAFO) and/or storage of direct products (e.g., milk, eggs). Production area does not include silage storage areas or pasture lands (Pasture land is land that is primarily used for the production of forage upon which livestock graze. Pasture land is characterized by a predominance of vegetation consisting of desirable forage species. Sites such as loafing areas, confinement areas, or feedlots which have livestock densities that preclude a predominance of desirable forage species are not considered pasture land.).

Production Area Wastewater means any process wastewater and any precipitation (e.g., rain or snow) which comes into contact with, or is contaminated by, any manure or manure storage areas, feed or feed storage areas, litter or bedding, secondary containment structures, or any other waste or polluting material or raw material or intermediate or final material or product used in or resulting from the production of animals or poultry or direct products (e.g., milk, eggs). Production area wastewater does not include water from land application areas nor does it include runoff and leachate from silage storage areas.

Regional Administrator is the Region 5 Administrator, U.S. EPA, located at R-19J, 77 W. Jackson Blvd., Chicago, Illinois 60604.

Silage Leachate means a liquid, containing organic constituents, that results from the storage of harvested plant materials, which usually have a high water content.

Water Quality Standards means the Part 4 Water Quality Standards developed under Part 31 of Act No. 451 of the Public Acts of 1994, as amended, being Rules 323.1041 through 323.1117 of the Michigan Administrative Code.

25-year, 24-hour storm event means the maximum 24-hour precipitation event with a probable recurrence interval of once in 25 years, as defined by the "Rainfall Frequency Atlas of the Midwest", Huff and Angel, Illinois State Water Survey, Champaign, Bulletin 71, 1992, and subsequent amendments, or equivalent regional or state rainfall probability information developed there from.

PART II

Section B. Reporting Requirements

1. Retained Self-Monitoring Requirements

The permittee shall maintain a year-to-date log of inspection, monitoring and record keeping results required by this permit and, upon request, provide such log for inspection to the staff of the Department. Such inspection, monitoring and record keeping results shall be submitted to the Department upon request.

The permittee shall certify, in writing, to the Department, on or before April 1st of each year, that: 1) all retained self-monitoring requirements have been complied with and a year-to-date log has been maintained; and 2) the application on which this permit is based still accurately describes the animal feeding operation.

2. Discharge and Noncompliance Reporting

Compliance with all applicable requirements set forth in the Federal Act, Parts 31 and 41 of the Michigan Act, and related regulations and rules is required. All instances of discharge or noncompliance shall be reported as follows:

a. 6-hour reporting – Any discharge shall be reported, verbally, as soon as practicable but no later than 6 hours from the time the permittee becomes aware of the discharge. A written report shall also be provided within five (5) days.

b. other reporting - The permittee shall report, in writing, all other instances of noncompliance not described in a. above at the time monitoring reports are submitted; or, in the case of retained self-monitoring or inspection results or records, within five (5) days from the time the permittee becomes aware of the noncompliance.

Written reporting shall include: 1) a description of the discharge and cause of noncompliance; and 2) the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and the steps taken to reduce, eliminate and prevent recurrence of the noncomplying discharge. All reporting shall be to each of the following: the Department, the clerk of the local unit of government and the county health department.

3. Spill Reporting

The permittee shall immediately report any release of any polluting material which occurs to the surface waters or groundwaters of the state, unless the permittee has determined that the release is not in excess of the threshold reporting quantities specified in the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code), by calling the Department at the number identified in the certificate of coverage, or if the notice is provided after regular working hours call the Department's 24-hour Pollution Emergency Alerting System telephone number, 1-800-292-4706 (calls from out-of-state dial 1-517-373-7660).

Within ten (10) days of the release, the permittee shall submit to the Department a full written explanation as to the cause of the release, the discovery of the release, response (clean-up and/or recovery) measures taken, and preventative measures taken or a schedule for completion of measures to be taken to prevent reoccurrence of similar releases.

4. Duty to provide information

The permittee shall furnish to the Department, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

5. Anticipated noncompliance

The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

PART II

Section B. Reporting Requirements

6. Transfer of Ownership or Control

In the event of any change in control or ownership of facilities from which this authorization applies, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Department at least 30 days prior to the actual transfer of ownership or control.

7. Records Retention

All records and information resulting from the monitoring and inspection activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recordings from continuous monitoring instrumentation shall be retained for a minimum of three (3) years, or longer if requested by the Department.

8. Planned Changes

The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when such alteration or addition may meet one of the criteria for determining whether a facility is a new source as specified in 40 CFR Part 122.29(b).

PART II

Section C. Management Responsibilities

1. Duty to Comply

All discharges authorized herein shall be consistent with the terms and conditions of this permit and the facility's certificate of coverage. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

It is the duty of the permittee to comply with all the terms and conditions of this permit facility's certificate of coverage. Any noncompliance with the Effluent Limitations, Special Conditions, or terms of this permit constitutes a violation of the Michigan Act and/or the Federal Act and constitutes grounds for enforcement action; for certificate of coverage termination, revocation and reissuance, or modification; or denial of an application for permit renewal.

2. Operator Certification

The permittee shall have the waste control facilities under direct supervision of an operator certified at the appropriate level for the facility certification by the Department, as required by Section 3110 of the Michigan Act. The permittee shall have an operator certified by the Department by the date specified in the COC.

3. Facilities Operation

The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with any requirement specified in this permit.

5. Containment Facilities

The permittee shall provide facilities for containment of any accidental losses of polluting materials in accordance with the requirements of the Part 5 Rules (Rules 324.2001 through 324.2009 of the Michigan Administrative Code).

6. Right of Entry

The permittee shall allow the Department, any agent appointed by the Department or the Regional Administrator, upon the presentation of credentials and following appropriate biosecurity protocols:

a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit; and

b. at reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under this permit; and to sample any discharge of pollutants.

PART II

Section C. Management Responsibilities

7. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Act and Rule 2128 (Rule 323.2128 of the Michigan Administrative Code), all reports submitted in accordance with the terms of this permit shall be available for public inspection at the offices of the Department and the Regional Administrator. As required by the Federal Act, effluent data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Act and Sections 3112, 3115, 4106 and 4110 of the Michigan Act.

8. Representative Monitoring

Monitoring shall be representative of the monitored activity.

9. Requirement to Obtain Individual Permit

The Department may require any person who has authorization by a certificate of coverage and this permit, to apply for and obtain an individual NPDES permit if any of the following circumstances apply:

a. The discharge is a significant contributor to pollution as determined by the Department on a case-by-case basis;

b. The permittee is not complying or has not complied with the conditions of this permit;

c. A change has occurred in the availability of demonstrated technology or practices for the control or abatement of waste applicable to the point source discharge;

d. Effluent standards and limitations are promulgated for point source discharges subject to this permit; or

e. The Department determines that the criteria under which the permit was issued no longer apply.

Any person may request the Department to take action pursuant to the provisions of Rule 2191 (Rule 323.2191 of the Michigan Administrative Code).

10. Signatory Requirement

All applications, reports, or information submitted to the Department shall be signed and certified as specified in 40 CFR Part 122.22.

11. Need to halt or reduce activity not a defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

PART II

Section D. Activities Not Authorized by This Permit

1. Discharge to the Groundwaters

This permit does not authorize any discharge to the groundwaters. Such discharge may be authorized by a groundwater discharge permit issued pursuant to the Michigan Act.

2. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond the permittee's control, such as accidents, equipment breakdowns, or labor disputes.

3. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee may be subject under Section 311 of the Federal Act except as are exempted by federal regulations.

4. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Federal Act.

5. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize violation of any federal, state or local laws or regulations, nor does it obviate the necessity of obtaining such permits or approvals as may be required by law.